

REMARKS

Applicants appreciate the detailed examination evidenced by the Official Action mailed April 25, 2002 (hereinafter "the Official Action.") In response, Applicants have amended the independent claims to further clarify that the updated host screen information recited therein is "based on information formatted for a character terminal display." As discussed herein in further detail, Hurvig relates to preventing the modification of files whereas Nakabayashi discusses the management of updated web pages. The information discussed in the cited references is not "based on information formatted for a character terminal display." Applicants submit that pending claims are patentable for at least the reasons discussed herein.

An initialed copy of PTO Form 1449 is respectfully requested.

Applicants submitted an Information Disclosure Statement (IDS), including a PTO Form 1449, for consideration by the Examiner on December 8, 1999 (a copy of which is enclosed herewith). To date, Applicants have not received an initialed copy of the PTO Form 1449. Accordingly, Applicants respectfully request an initialed copy of the PTO Form 1449 submitted on December 8, 1999 indicating consideration of the references listed therein.

The suggested change to the specification has been made.

The Official Action objected to the disclosure because of reference to "105c" on Page 8, line 23. *Official Action, page 2.* Applicants have amended the specification to replace the reference to "105c" with "115b" as suggested by the Examiner. Applicants have further amended the specification at page 9, line 25 to replace the reference to "a connection 140" with "a connection 124" to correct a minor typographical error. The objection to the disclosure has, therefore, been addressed and should be withdrawn.

The amended claims comply with 35 U.S.C. § 112.

Claims 5, 16, 27, and 34 stand rejected under 35 U.S.C. § 112, second paragraph. Official Action, page 2. *Official Action, page 2.* In response, Claims 5, 16, and 27 have been amended to recited "updated host screen information" as suggested by the Examiner. Accordingly, the rejection of Claims 5, 16, and 27 has been overcome and should be withdrawn.

Applicants have also amended Claim 34 to replace the recitation of "notification application code" with "notification application" as suggested by the Examiner. Accordingly, the rejection of Claim 34 has been overcome and should be withdrawn.

The amended independent claims are patentable over Hurvig and Nakabayashi.

Claims 1-4, 6-15, 17-26, and 28-36 stand rejected under 35 U.S.C. § 103 over U.S. Patent No. 5,978,802 to Hurvig ("Hurvig") and U.S. Patent No. 5,905,866 to Nakabayashi et al. ("Nakabayashi"). *Official Action, pages 3-5.* Applicants respectfully submit that Hurvig and Nakabayashi do not, neither singularly nor in combination, disclose or suggest the recitations of the amended claims. Even if the references were combined, the combination would not disclose or suggest all of the recitations of the claims and there is no clear and particular evidence of a suggestion or motivation to combine the references as required under § 103.

The independent claims have been amended to recite in-part:

establishing a first connection between the client application and a server application, wherein the server application provides updated host screen information to the client application in response to requests from the client application, **wherein the updated host screen information is based on information formatted for a character terminal display;**

establishing a second connection between a monitor application and the server application;

receiving a notification of the availability of updated host screen information via the second connection at the monitor application;

requesting the updated host screen information over the first connection responsive to receiving the notification;
receiving the requested updated host screen information at the client application; and
displaying the received updated host screen information utilizing the client application. Amended independent Claim 1. Amended Independent Claims 8, 12, 19, 23, 30, and 34 include similar recitations.

To establish a *prima facie* case of obviousness, three basic criteria must be met. The prior art reference (or references when combined) must teach or suggest all of the claim limitations. There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, and there must be a reasonable expectation of success of the combination. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. See MPEP § 2143. To support combining references in a § 103 rejection, evidence of a suggestion, teaching, or motivation to combine must be clear and particular, and this requirement is not met by merely offering broad, conclusory statements about teachings of references. *In re Dembiczak*, 50 USPQ2.d 1614, 1617 (Fed. Cir. 1999).

As understood by Applicants, Hurvig discusses a system for controlling access to files on a network. For example, much of the background section in Hurvig discusses problems associated with allowing multiple clients access to the same file wherein each of the clients is free to modify the files maintained by the server. As stated by Hurvig "it is a primary object of [Hurvig] to provide an improved file management system having opportunistic file locks in a network environment." *Hurvig, column 3, lines 57 – 61 with (emphasis added)*. In particular, Hurvig outlines operation of the system as follows:

With the file table 220 in the state described above, if process #1 is running on client A and another process running on a different client requested the file "Name2" for read-write access, the server 206 would recognize from the file table 220 that file "Name2" was presently in the local memory space of process #1. The server 206 would then transmit a request to the second socket

216 of process #1 to relinquish control of file "Name2". Process #1, upon receiving the request through the second socket 216, would then flush file "Name2" from its cache memory 210 and instruct the server 206 through its first socket 214 that it had relinquished the file. It is important to note that the file need not be transmitted over the network to the server 206 since process #1 had read-only access to the file and no changes would have been made to the file. In contrast, if the process had requested access to file "Name1", then process #2 would need to transmit any of the modified portions of the file from its cache 210 to the server 206.

Hurvig, column 8, lines 45 – 62.

As demonstrated by the above cited passage, Hurvig addresses the problem of managing write access to files on a network to prevent one process from modifying data while another process is operating on (or is holding a copy of) the file locally. In contrast to Hurvig, embodiments according to the present invention relate to providing **updated host screen information** to a client application. As understood by Applicants, Hurvig does not call for locking data which is not modified, such as data that is "formatted for a character terminal display." *Independent Claims 1, 8, 12, 19, 23, 30, and 34.*

Furthermore, Nakabayashi does not provide the teachings missing from Hurvig. As understood by Applicants, Nakabayashi relates to a system for providing updated web pages to a client by monitoring updates to those web pages and then providing the web pages to the client, for example, in response to a specific request by the client. *Summary of Nakabayashi.* The Web pages discussed in Nakabayashi do not disclose or suggest "updated host screen information based on information formatted for a character terminal display" as recited in the independent claims. In particular, as understood by Applicants, the Web pages monitored by the server in Nakabayashi are made up of HTML code, not information "formatted for a character terminal display" as recited in the amended independent claims. Accordingly, even if Hurvig and Nakabayashi were combined, the combination would not disclose or suggest all the recitations of the claims.

Moreover, Nakabayashi consists of 70 pages of drawings and 78 columns of text, yet the Official Action only cites one sentence of Nakabayashi in support of the rejection of the independent claims: "The preset invention is also directed to a method of monitoring update of data stored in a server and transferring information obtained as a result of the update monitor to a client." *Nakabayashi, col. 5, line 12-15*. If the rejection based on Nakabayashi is maintained, Applicants respectfully request that the Examiner assist Applicants in locating the specific passages of Nakabayashi that are relied on.

There is also no clear and particular evidence, either to modify Hurvig as alleged, or to combine the references. As understood by Applicants, the Official Action alleges that "storing screen update information at the server... is well known and would have been an obvious modification of Hurvig's system." *Official Action, page 3*. Respectfully, even assuming for the sake of argument that storing screen update information at a server is well known, Applicants submit that such a modification to Hurvig would not have been obvious. In particular, there would have been no clear and particular motivation to modify Hurvig to lock updated host screen information that is intended for output and, therefore, is not modified by another client. Therefore, Hurvig actually teaches away from the modification alleged by the Official Action.

There is also no clear and particular evidence to combine Hurvig and Nakabayashi. As discussed above, Hurvig discusses locking access to a file stored on a server (when a client is allowed to modify the file) to prevent another client from using the file. Nakabayashi discusses monitoring changes to Web pages of interest to a client. There is no clear and particular evidence to combine Hurvig with Nakabayashi as Hurvig relates to preventing access to files whereas Nakabayashi relates to enabling access to files. Moreover, the objects of Hurvig (preventing access) and Nakabayashi (enabling access) appear to be at odds with one another and, therefore, teach away from a combination.

Amended independent Claims 1, 8, 12, 19, 23, 30, and 34 are patentable over Hurvig and Nakabayashi for at least the reasons discussed herein. Furthermore,

dependent Claims 2 – 7, 9 – 11, 13 – 18, 20 – 22, 24 – 29, 31 – 33 and 35 – 36 are patentable at least per the patentability of the amended independent claims as discussed above.

Many of the dependent claims are separately patentable.

In addition to the reasons discussed above in reference to the amended independent claims, many of the dependent claims provide separate bases for patentability over Hurvig and Nakabayashi. For example, Hurvig and Nakabayashi, either singularly or in combination, do not disclose or suggest:

extracting the notification code from the host screen
information; and
executing the notification code.

Claim 3. Claims 10, 14, 21, 25 and 32 include similar recitations.

As understood by Applicants, the Official Action considers the monitoring function provided by the server in Hurvig to disclose the monitor application recited in the claims. *Official Action, page 4.* However the monitoring function described in Hurvig resides at the server and is not provided with updated host screen information so that it can be extracted from the host screen information and executed so that additional updated host screen information may be later requested when notification of the availability of updated host screen information is received at a later time. For example, as discussed in the present application, in some embodiments according to the present invention as illustrated in Figure 5:

Formatted updated host screen information (web page) is downloaded from the server 110 to the client application 115 over the request connection 124 (block 510). **The formatted updated host screen information includes a notification code 140 which can be run by the client application 115.**

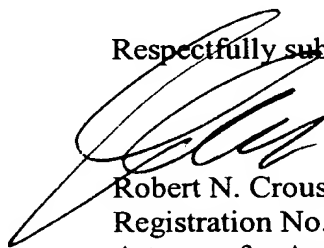
The notification code 140 initializes the first client socket 119, establishing the notification connection 122 between the server 110 and the notification code 140 and blocks on a read of the first client socket 119 (block 515). In other words, the notification code 140 continues to wait for a message to be received from the server 110 over the notification connection 122. *Application, page 10, lines 1-9 (emphasis added).*

As understood by Applicants, the monitoring function discussed in Nakabayashi also resides solely at the server level. *Nakabayashi*, col. 7, lines 16-18. Accordingly, even if Hurvig and Nakabayashi were combined, the combination would not disclose or suggest all the recitations of dependent Claims 3, 10, 14, 21, 25 and 32. Accordingly, dependent Claims 3, 10, 14, 21, 25 and 32 are separately patentable over the cited references for at least these additional reasons.

CONCLUSION

Applicants have shown herein that the recitations of the amended claims are not disclosed or suggested by the cited references. Applicants have also shown that there is no clear and particular evidence of a motivation or suggestion to combine the references as required under § 103. Accordingly, Applicants respectfully request the allowance of all claims in due course. If any informal matters arise, the Examiner is encouraged to contact the undersigned by telephone at (919) 854-1400.

Respectfully submitted,



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PATENT TRADEMARK OFFICE

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Box Non-Fee Amendment, Commissioner for Patents, Washington, DC 20231, on July 24, 2002.



Audra Wooten

Date of Signature: July 23, 2002

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Sir:

The following is an addendum to the concurrently filed amendment in response to an Official Action dated April 25, 2002 in the above referenced application. This addendum includes a marked-up version of the changes made to the specification and claims by the present amendment.

In the specification:

Please replace the paragraph beginning at page 8, line 15, with the following rewritten paragraph:

-- **FIG. 2** is a block diagram of a second embodiment of a system according to the present invention wherein the server **110** provides terminal emulation session applications **130a-c** for a plurality of respective client applications **115a-c**. Each application **130a-c** identifies the requests received from the respective client application **115a-c**. In particular, Identifiers (IDs) are associated with requests made by each client **115a-c**. For example, the ID included in a first request from the first client application **115a** for updated host screen information identifies the first client application **115a**, a second request from the second client application **115b** for updated host screen information identifies the second client application **[105c] 115b**, and a third request from the third client application **115c** for updated host screen information identifies the third client application **115c**. Accordingly, the respective application **130a-c** can transmit the formatted updated host screen information to the appropriate client application **115a-c**. --

Please replace the paragraph beginning at page 9, line 16 with the following rewritten paragraph:

-- The server **110** receives updated host screen information from the host system **105** and notifies the client application **115** of the availability of the updated

host screen information via the notification connection 122 (block 415). For example, the server 110 can transmit a message via the notification connection 122 to the notification code 140. Upon receiving the notification of available updated host screen information, the client application 115 transmits a request for the formatted updated host screen information to the server 110 (block 420) via the request connection 124. The server 110 responds to the request by transmitting the formatted updated host screen information to the client application 115 via the request connection [140] 124. The formatted updated host screen information is received by the client application 115 (block 425) and displayed (block 430). --

In the Claims:

Claims 1, 5, 8, 12, 19, 23, 27, 30, and 34 have been amended as follows:

1. (Amended) A method of providing updated host screen information to a client application, the client application utilizing a request-response communications model, the method comprising:

establishing a first connection between the client application and a server application, wherein the server application provides updated host screen information to the client application in response to requests from the client application, wherein the updated host screen information is based on information formatted for a character terminal display;

establishing a second connection between a monitor application and the server application;

receiving a notification of the availability of updated host screen information via the second connection at the monitor application;

requesting the updated host screen information over the first connection responsive to receiving the notification;

receiving the requested updated host screen information at the client application; and

displaying the received updated host screen information utilizing the client application.

5. (Amended) The method of Claim 1, wherein the updated host screen information comprises terminal emulation information.

8. (Amended) A method of providing updated host screen information to a client application, the client application utilizing a request-response communications model, the method comprising:

establishing a first connection between the client application and a server application, wherein the server application provides updated host screen information to the client application in response to requests from the client application, wherein the updated host screen information is based on information formatted for a character terminal display;

establishing a second connection between a monitoring application and the server application;

receiving updated host screen information from a host system;

transmitting a notification of the availability of updated host screen information to the monitoring application over the second connection responsive to receiving the updated host screen information;

receiving a request for the updated host screen information from the client application over the first connection; and

transmitting the received updated host screen information to the client application over the first connection in response to receiving the request for the updated host screen information from the client application.

12. (Amended) A system of providing updated host screen information to a client application, the client application utilizing a request-response communications model, the system comprising:

means for establishing a first connection between the client application and a server application, wherein the server application provides updated host screen information to the client application in response to requests from the client

application, wherein the updated host screen information is based on information formatted for a character terminal display;

means for establishing a second connection between a monitor application and the server application;

means for receiving a notification of the availability of updated host screen information via the second connection at the monitor application;

means for requesting the updated host screen information over the first connection responsive to receiving the notification;

means for receiving the requested updated host screen information at the client application; and

means for displaying the received updated host screen information utilizing the client application.

19. (Amended) A system of providing updated host screen information to a client application, the client application utilizing a request-response communications model, the system comprising:

means for establishing a first connection between the client application and a server application, wherein the server application provides updated host screen information to the client application in response to requests from the client application, wherein the updated host screen information is based on information formatted for a character terminal display;

means for establishing a second connection between a monitoring application and the server application;

means for receiving updated host screen information from a host system;

means for transmitting a notification of the availability of updated host screen information to the monitoring application over the second connection responsive to receiving the updated host screen information;

means for receiving a request for the updated host screen information from the client application over the first connection; and

means for transmitting the received updated host screen information to the client application over the first connection in response to receiving the request for the updated host screen information from the client application.

23. (Amended) A computer program product that provides updated host screen information to a client application, the client application utilizing a request-response communications model, the computer program product comprising:

a computer-readable storage medium having computer-readable program code means embodied in said medium, said computer-readable program code means comprising:

computer readable program code means for establishing a first connection between the client application and a server application, wherein the server application provides updated host screen information to the client application in response to requests from the client application, wherein the updated host screen information is based on information formatted for a character terminal display;

computer readable program code means for establishing a second connection between a monitor application and the server application;

computer readable program code means for receiving a notification of the availability of updated host screen information via the second connection at the monitor application;

computer readable program code means for requesting the updated host screen information over the first connection responsive to receiving the notification;

computer readable program code means for receiving the requested updated host screen information at the client application; and

computer readable program code means for displaying the received updated host screen information utilizing the client application.

27. (Amended) The computer program product of Claim 23, wherein the updated host screen information comprises terminal emulation information.

30. (Amended) A computer program product of providing updated host screen information to a client application, the client application utilizing a request-response communications model, the computer program product comprising:

a computer-readable storage medium having computer-readable program code means embodied in said medium, said computer-readable program code means comprising:

computer readable program code means for establishing a first connection between the client application and a server application, wherein the server application provides updated host screen information to the client application in response to requests from the client application, wherein the updated host screen information is based on information formatted for a character terminal display;

computer readable program code means for establishing a second connection between a monitoring application and the server application;

computer readable program code means for receiving updated host screen information from a host system;

computer readable program code means for transmitting a notification of the availability of updated host screen information to the monitoring application over the second connection responsive to receiving the updated host screen information;

computer readable program code means for receiving a request for the updated host screen information from the client application over the first connection; and

computer readable program code means for transmitting the received updated host screen information to the client application over the first connection in response to receiving the request for the updated host screen information from the client application.

34. (Amended) A system for displaying updated host screen information utilizing a web browser, comprising:

a host server application;

a browser application configured to communicate with the host server application;

a first connection configured to provide communication between the host server application and the browser application;

a notification application operably associated with the browser application that notifies the browser application to request updated host screen information from the host server application for display by the browser application, wherein the updated host screen information is based on information formatted for a character terminal display; and

a second connection, established by the notification application [code], configured to provide communication between the host server application and the notification application.

****END****